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Martha S. Sloan
(signature)

Date of signature and deposit - May 15, 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Frank E. Semersky) Group Art Unit: 1771
)
Serial No. 10/684,611) Examiner: Hai Vo
)
Filed: October 14, 2003)
) Attorney Docket: 1-36691
For: CONTAINER HAVING FOAM)
LAYER)

May 15, 2006

Mail Stop APPEAL BRIEF - PATENTS
Commissioner for Patents
P. O. Box 1450
Alexandria VA 22313-1450

BRIEF ON APPEAL

Honorable Sir:

This is an appeal under 37 CFR 41.37 from the action of the Examiner dated December 1, 2005, finally rejecting Claims 1 – 25 in the above-identified application. Appellant is herewith filing a timely Notice of Appeal under 37 CFR 41.31, and requesting an extension of time pursuant to 37 CFR 1.136(a).

The Commissioner is hereby authorized to charge \$250.00 for small entity and any additional fees for, *inter alia*, the requested extension of time, to Deposit Account No. 50-3156.

A decision on whether to request an oral hearing will be delayed until after the Examiner's Answer has been received.

Respectfully submitted,

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REAL PARTY IN INTEREST

The Inventor, Frank E. Semersky, is a resident of Toledo, Ohio.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on, the Board's decision in this pending Appeal.

STATUS OF CLAIMS

Claims 1 - 25 stand rejected, and are being appealed.

STATUS OF AMENDMENTS

There are no amendments pending in the application.

SUMMARY OF THE CLAIMED SUBJECT MATTER

References hereunder are to the Paragraph numbers of the published application No. US 2004/0086703 A1.

Appellant's invention as set forth in Claim 1 is directed to a container. It comprises:

- a first layer of plastic (Paragraph 7); and
- a second layer of plastic contacting said first layer, said second layer of plastic formed as a foam wherein the foam cells contain carbon dioxide (Paragraph 7).

Another embodiment of the invention is directed to a multilayer preform, set forth in Claim 22, comprising as follows:

- a first layer of plastic (Paragraphs 7, 11, & 12); and
- a second layer of plastic contacting said first layer, said second layer of plastic formed as a foam wherein the foam cells contain carbon dioxide (Paragraphs 7, 11, & 12).

An alternative embodiment of the invention is directed to a multilayer preform, set forth in Claim 23, comprising as follows:

a first layer of polyethylene terephthalate (Paragraphs 7, 9, 11, & 12); and a second layer of plastic contacting said first layer, said second layer of plastic formed as a foam wherein the foam cells contain carbon dioxide (Paragraphs 7, 9, 11, & 12).

An alternative embodiment of the invention is directed to a multilayer preform, set forth in Claim 24, comprising as follows:

a first layer of plastic (Paragraphs 7, 11, & 12);
a second layer of plastic contacting said first layer, said second layer of plastic formed as a foam wherein the foam cells contain carbon dioxide (Paragraphs 7, 9, 11, & 12); and.

a third layer of polyethylene terephthalate contacting said first layer of plastic, said third layer of polyethylene terephthalate formed as a foam wherein the foam cells contain a gas (Paragraphs 7, 9, 11, & 12).

An alternative embodiment of the invention is directed to a multilayer preform, set forth in Claim 25, comprising as follows:

a first layer of plastic (Paragraphs 7, 9, 11, & 12);
a second layer of plastic contacting said first layer, said second layer of plastic formed as a foam wherein the foam cells contain carbon dioxide (Paragraphs 7, 9, 11, & 12); and
a third layer of polyethylene terephthalate contacting said second layer or plastic (Paragraphs 7, 9, 11, & 12).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

ISSUE I:

Whether Claims 8 and 9 are unpatentable under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out or distinctly claim the subject matter which Appellant regards as the invention.

ISSUE II:

Whether Claims 1, 2, 5, 8-13, 16-19, and 22 are unpatentable as being anticipated by US Patent No. 5,149,579 to Park et al. (Park).

ISSUE III:

Whether Claims 1-11, 22, and 23 are unpatentable as being anticipated by US Patent No. 6,485,819 to Hayes et al. (Hayes).

ISSUE IV:

Whether Claims 3, 4, 6, 7, 14, 15, 20, 21, and 23-25 are unpatentable as being obvious over Park in view of Hayes.

ISSUE V:

Whether Claims 12-17 and 24 are unpatentable as being obvious over Hayes in view of Park.

ISSUE VI:

Whether Claims 18-21 and 25 are unpatentable over Hayes in view of US Patent No. 5,149, 579 to Hasse et al. (Hasse).

ISSUE VII:

Whether Claims 1-11, 22, and 23 are unpatentable as being obvious over US Patent No. 5,919,547 to Kocher et al. (Kocher) in view of Hayes.

ARGUMENT I

Claims 8 and 9 recite that the first and second layers of plastic are either the same or different. This parrots the language of Paragraph 0008, wherein it is disclosed that the first and second layers may be the same or different in composition, thickness, orientation, etc. Paragraph 0008 further describes plastics that are different, from which the first and second layers may be made.

In order to satisfy the requirements of 35 USC 112, second paragraph, one skilled in the art, reading the original disclosure, must reasonably be able to discern the limitation at issue in the claims. Waldemar Link GmbH & Co. v. Osteonics Corp., 32 F3d 556, 558, 31 USPQ2d 1855, 1857 (Fed. Cir. 1994). The legal standard for indefiniteness under 35 U.S.C. Section 112, second paragraph, is whether a claim

reasonably apprises those of skill in the art of it scope. See *Amgen Inc. v. Chugai Pharmaceutical Co., Ltd.*, 927 F2d 1200, 1217, 18 USPQ2d 1016, 1030 (Fed. Cir), cert. denied sub nom., *Genetics Inst., Inc. v. Amgen, Inc.*, 112 S. Ct. 169 (1991). The definiteness of claim language is analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing an ordinary level of skill in the pertinent art. *In re Moore*, 439 F2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971).

Appellant submits that the Specification specifically discloses how the first and second layers can be the same or different, and that the reader is fully apprised of the scope of the Claims, when read by one ordinarily skilled in the art in light of the prior art. Accordingly, Appellant respectfully submits that Claims 8 and 9 fully comply with the requirements of 35 USC 112, second paragraph.

ARGUMENT II

Claims 1 and 22 recite a layer of plastic formed as a foam wherein the foam cells contain carbon dioxide. The carbon dioxide remains in the cells of the foam. Park discloses the use carbon dioxide as a blowing agent. However, the “blowing agent is used primarily for controlling the density of the foam” [column 10, lines 33-34]. More importantly, Park discloses that the blowing agent “comes out of solution creating bubbles when the pressure and temperature decrease” [column 10, lines 34-37]. Furthermore, Park discloses that the foam sheet is “aged for a period of time to allow for diffusion of the blowing agent and air through the cell walls” [column 8, lines 21-25]. Thus, foam sheet according to Park uses a carbon dioxide foaming agent for controlling the density of the foam only.

Park does not disclose a layer of plastic “wherein the foam cells contain...carbon dioxide”. Accordingly, Park does not anticipate Appellant’s invention. As a result, the Park reference cannot properly serve as a basis for rejection of independent Claims 1 and 22 or Claims which depend therefrom under 35 U.S.C. 102(b).

ARGUMENT III

Claims 1, 22, and 23 recite a layer of plastic formed as a foam wherein the foam cells contain carbon dioxide. The carbon dioxide remains in the cells of the foam. A careful examination of the Hayes patent discloses polyesters foamed by a variety of methods. The Examiner stated, “the foam cells would have contained carbon dioxide” because “the layer of copolyester is foamed by using carbon dioxide as a blowing agent”. However, Hayes discloses that in selecting the method of foaming the polyesters a desired foaming action is sought [column 15, lines 60-61].

Hayes discloses injecting an inert gas such as carbon dioxide into the melt during extrusion or molding process [column 15, line 35 et seq.]. It is clear from Hayes that the foaming method is chosen only for a “desired foaming action in the polymeric melt” [column 15, lines 60-63] and nothing more. Hayes does not disclose a “foam plastic layer wherein the foam cells contain... carbon dioxide [or]... other gases”, as found in the present application.

Hayes does not disclose a layer of plastic “wherein the foam cells contain...carbon dioxide”. Accordingly, Hayes does not anticipate Appellant’s invention. As a result, the Hayes reference cannot properly serve as a basis for rejection of independent Claims 1, 22, and 23 or Claims which depend therefrom under 35 U.S.C. 102(e).

ARGUMENTS IV–VII:

Appellant respectfully asserts that the Examiner has failed to establish a *prima facie* case of obviousness in regards to Claims 1 and 22-25 because the cited references do not contain any motivation or suggestion to combine references. More importantly, even if the references are combined, the combination of references does not produce each and every limitation of independent Claims 1 and 22-25. All of the independent claims recite a plastic layer “formed as a foam wherein the foam cells contain carbon dioxide.” Indeed, none of the cited references requires the foam cells to contain carbon dioxide. As a result, no combination of references can properly serve as a basis for rejection of independent Claims 1, 22-25 or Claims dependent therefrom under 35 U.S.C. 103(a).

Park discloses a container having a polypropylene foam layer, a functional layer, and a polypropylene foam layer [column 8, lines 30-60]. Park does not, however, disclose

a foam layer made from polyethylene terephthalate for improved biodegradation rate and thermal properties. The Examiner even notes this, stating “Park does not teach the foam layer made from a polyethylene terephthalate”. The Examiner asserts that Hayes cures the defect of Park. The Examiner states, “Hayes...teaches... a foam layer made from a copolyester that exhibit (sic) an improved rate of biodegradation more amenable to solid waste disposal”. Indeed, Hayes does disclose laminates and multilayer films with improved characteristics. However, Hayes does not disclose the combination of the copolyester film with another material with similarly desired characteristics amenable to solid waste disposal. In fact, Hayes merely discloses laminates and “film... combined with other polymeric materials... with improved characteristics, such as water vapor resistance” [column 9, lines 61-64; column 12, lines 38-42]. The addition of the film or laminate with another polymeric material could indeed significantly alter the degradation rate of the container thereby changing the characteristics to be less amenable to solid waste disposal. Indeed, a thorough examination of Hayes shows it is completely devoid of any disclosure regarding multilayer objects comprised of identical materials or materials with similar biodegradation characteristics.

Accordingly, one skilled in the art would have no motivation to combine the multilayer container of Park with the laminate or film having the increased biodegradation rate and thermal principles of Hayes because Hayes does not disclose multilayer objects comprised of identical materials or materials with similar biodegradation characteristics, in any manner.

Even if the Park and Hayes references are combined, the combination does not produce each and every limitation of independent Claims 23-25, which recite a layer of plastic formed as a foam wherein the foam cells contain carbon dioxide. As discussed above, Park discloses that the blowing agent “comes out of solution creating bubbles when the pressure and temperature decrease”. Hayes merely discloses a blowing agent utilized merely for a “desired foaming action in the polymeric melt” and is completely devoid of any teaching or suggestion of multilayer objects comprised of identical materials or materials with similar biodegradation characteristics. Therefore, the combination of references fails to teach or suggest each and every limitation of independent Claims 23-25. Accordingly, even if Park and Hayes are combined, each and every limitation of Appellant’s invention is not represented. As a result, this combination

of references cannot properly serve as a basis for rejection of independent Claims 23-25 nor any of the dependent claims under 35 U.S.C. § 103(a).

The Examiner has also failed to establish a *prima facie* case for independent Claim 24 under 35 U.S.C. § 103(a) as being unpatentably obvious over Hayes in further view of Park. Independent Claim 24, like independent Claims 1, 22, 23, and 25 recites a plastic layer “formed as a foam wherein the foam cells contain carbon dioxide”. As discussed above, neither Park nor Hayes requires the foam cells to contain carbon dioxide. Therefore, even if there were a suggestion to combine the references, the combination does not produce the limitation that the foam cells contain carbon dioxide.

The Examiner has also failed to establish a *prima facie* case for independent Claim 25 under 35 U.S.C. § 103(a) as being unpatentably obvious over Hayes in further view of Hasse. Claim 25, like independent Claims 1 and 22-24 recites a plastic layer “formed as a foam wherein the foam cells contain carbon dioxide”. As discussed above, Hayes does not require the foam cells to contain carbon dioxide. Hasse is completely devoid of mention of blowing agents, a foaming process, polyethylene terephthalate, foam cells containing carbon dioxide, or any mention of carbon dioxide whatsoever. Therefore, even if there was a suggestion to combine the references, the combination does not produce the limitation that the foam cells contain carbon dioxide.

Lastly, the Examiner has failed to establish a *prima facie* case for independent Claims 1, 22, and 23 under 35 U.S.C. § 103(a) as being unpatentably obvious over Kocher in further view of Hayes. Claims 1, 22, and 23, like independent Claims 24-25 recite a plastic layer “formed as a foam wherein the foam cells contain carbon dioxide”. As discussed above, Hayes does not require the foam cells to contain carbon dioxide. As the Examiner pointed out, Kocher similarly “does not teach the use of carbon dioxide to form the foamed support member” nor does Kocher disclose that the foam layer contains carbon dioxide. Therefore, even if there were a suggestion to combine the references, the combination does not produce the limitation that the foam cells contain carbon dioxide.

CLAIMS APPENDIX

1. (original) A container, comprising: a first layer of plastic; and a second layer of plastic contacting said first layer, said second layer of plastic formed as a foam wherein the foam cells contain carbon dioxide.
2. (original) The container according to claim 1, wherein the first layer of plastic comprises a plastic selected from the group consisting of polyesters, acrylonitrile acid esters, vinyl chlorides, polyolefins, polyamides, and derivatives, blends, and copolymers thereof.
3. (original) The container according to claim 1, wherein the first layer of plastic comprises a polyester.
4. (original) The container according to claim 1, wherein the first layer of plastic comprises polyethylene terephthalate.
5. (original) The container according to claim 1, wherein the second layer of plastic comprises a plastic selected from the group consisting of polyesters, acrylonitrile acid esters, vinyl chlorides, polyolefins, polyamides, and derivatives, blends, and copolymers thereof.
6. (original) The container according to claim 1, wherein the second layer of plastic comprises a polyester.
7. (original) The container according to claim 1, wherein the second layer of plastic comprises polyethylene terephthalate.
8. (original) The container according to claim 1, wherein the first and second layers of plastic are the same.

9. (original) The container according to claim 1, wherein the first and second layers of plastic are different.
10. (original) The container according to claim 1, wherein the foam cells contain a gas comprising a gas selected from the group consisting of carbon dioxide, nitrogen, argon, air, and blends and derivatives thereof.
11. (original) The container according to claim 1, wherein the foam cells contain a gas comprising carbon dioxide.
- 12 (original) The container according to claim 1, further comprising a third layer of plastic contacting said first layer of plastic, said third layer of plastic formed as a foam wherein the foam cells contain a gas.
13. (original) The container according to claim 12, wherein the third layer of plastic comprises a plastic selected from the group consisting of polyesters, acrylonitrile acid esters, vinyl chlorides, polyolefins, polyamides, and derivatives, blends, and copolymers thereof.
14. (original) The container according to claim 12, wherein the third layer of plastic comprises a polyester.
15. (original) The container according to claim 12, wherein the third layer of plastic comprises polyethylene terephthalate.
16. (original) The container according to claim 12, wherein the gas in the foam cells of the third layer of plastic comprises a gas selected from the group consisting of carbon dioxide, nitrogen, argon, air, and blends and derivatives thereof.
17. (original) The container according to claim 12, wherein the gas in the foam cells of the third layer of plastic comprises carbon dioxide.

18. (original) The container according to claim 1, further comprising a third layer of plastic contacting said second layer of plastic.
19. (original) The container according to claim 18, wherein the third layer of plastic comprises a plastic selected from the group consisting of polyesters, acrylonitrile acid esters, vinyl chlorides, polyolefins, polyamides, and derivatives, blends, and copolymers thereof.
20. (original) The container according to claim 18, wherein the third layer of plastic comprises a polyester.
21. (original) The container according to claim 18, wherein the third layer of plastic comprises polyethylene terephthalate.
22. (previously presented) A multilayer preform, comprising: a first layer of plastic; and a second layer of plastic contacting said first layer, said second layer of plastic formed as a foam wherein the foam cells contain carbon dioxide.
23. (previously presented) A multilayer preform, comprising: a first layer of polyethylene terephthalate; and a second layer of plastic contacting said first layer, said second layer of plastic formed as a foam wherein the foam cells contain carbon dioxide.
24. (previously presented) A multilayer preform; comprising: a first layer of plastic; a second layer of plastic contacting said first layer, said second layer of plastic formed as a foam wherein the foam cells contain carbon dioxide; and a third layer of polyethylene terephthalate contacting said first layer of plastic, said third layer of polyethylene terephthalate formed as a foam wherein the foam cells contain a gas.
25. (previously presented) A multilayer preform; comprising: a first layer of plastic; a second layer of plastic contacting said first layer, said second layer of plastic formed as a foam wherein the foam cells contain carbon dioxide; and a third layer of polyethylene terephthalate contacting said second layer of plastic.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.